

## **Historic, Archive Document**

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# **Basin Outlook Reports**

**and**

## **Federal - State - Private Cooperative Snow Surveys**

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### **How forecasts are made**

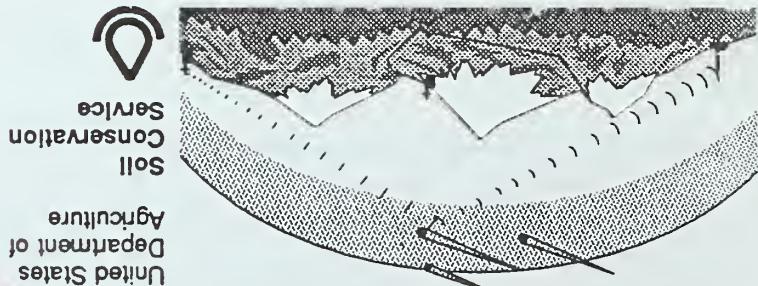
Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Soil Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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## Basin Outlook Reports

In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Soil Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Soil Conservation Service, West National Technical Center, 511 Northwest Broadway, Room 248, Portland, OR 97209-3489.

### Issued by

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MARCH 1991

## GENERAL OUTLOOK

### SUMMARY:

MARCH 1, 1991: FEBRUARY PRECIPITATION WAS 93% OF NORMAL STATE WIDE, AND VARIED FROM 50% OF AVERAGE IN THE WALLA WALLA BASIN TO 134% IN THE OLYMPIC BASIN. THE SNOWPACK IS NOW BELOW NORMAL STATE WIDE, BUT VARIES FROM 37% IN THE COLVILLE BASIN TO 128% IN THE CHELAN BASIN. WASHINGTON'S SNOTEL SITES ARE AVERAGING 77% OF NORMAL SNOWPACK ON MARCH 1 (BY MARCH 8, THE STATEWIDE AVERAGE WAS 84%). YEAR-TO-DATE PRECIPITATION VARIES FROM 77% IN THE COLVILLE TO 139% IN THE NORTH PUGET. FEBRUARY TEMPERATURES WERE ABOVE NORMAL AND VARIED FROM 4 DEGREES ABOVE IN THE OLYMPIC BASIN TO 8 DEGREES ABOVE IN THE WALLA WALLA BASIN. MARCH 1 RESERVOIR STORAGE IS GENERALLY GOOD THROUGHOUT THE STATE, WITH RESERVOIRS IN THE YAKIMA BASIN AT 133% OF AVERAGE AND 87% OF CAPACITY. FEBRUARY STREAMFLOWS VARIED FROM 275% OF NORMAL ON THE SIMILKAMEEN RIVER TO 92% ON THE GRANDE RONDE RIVER AT TROY. FORECASTS FOR 1991 RUNOFF VARY FROM 150% OF AVERAGE FOR THE SIMILKAMEEN RIVER TO 49% ON MILL CREEK IN THE WALLA WALLA BASIN.

### SNOWPACK:

Snowpack, as a percent of normal, continued to decline in Washington during February. Snowpack varies over the state from 128% of normal in the Chelan Basin to 37% in the Colville Basin. In the Walla Walla River Basin snowpack is 50%. The Yakima Basin is now at 60%, down from 68%. Snowpack along the west slopes of the Cascade Mountains includes the Green with 60%, the Cowlitz Basin with 60% and the Skagit 127%. Snowpack in the Wenatchee Basin is at 80% of normal, and the Spokane at 81%. SNOTEL sites in Washington are showing snowpack that is 77% of average for March 1, state wide. Maximum snow cover is at Jasper Pass in the Baker River drainage, with 192 inches of depth and a water content of 101.0 inches. This site would normally have 77.0 inches of water content on March 1.

## **PRECIPITATION:**

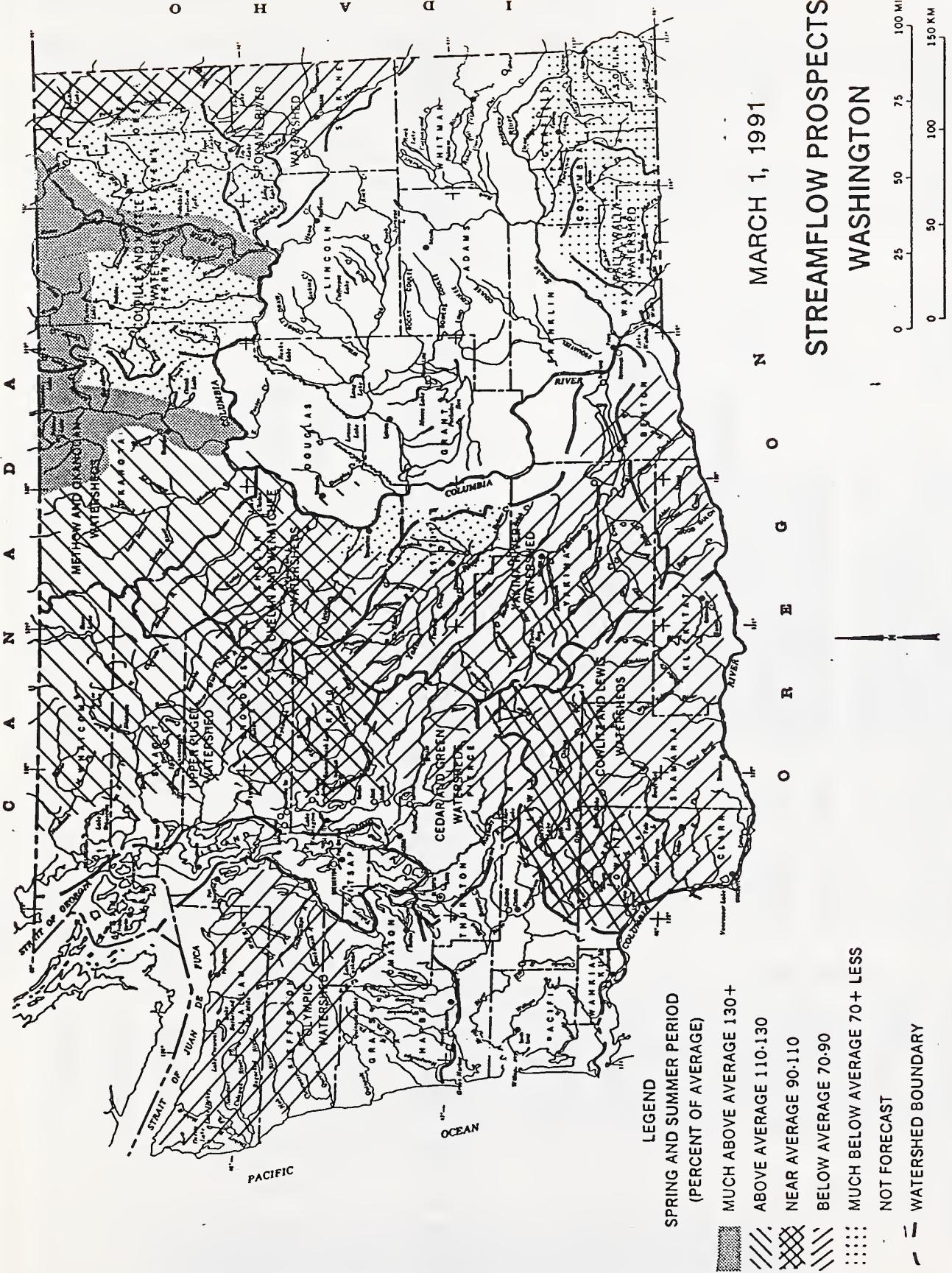
February precipitation varied from 134% of average in the Olympic Basin, to 50% in the Walla Walla Basin. Statewide, February precipitation from National Weather Service stations was 93% of average. The year-to-date precipitation varied from 139% of normal in the North Puget Basin to 77% in the Colville-Pend Oreille Basin. SNOTEL sites in Washington showed high elevation year-to-date precipitation values to be 114%. Maximum year-to-date precipitation was at the June Lake SNOTEL site near Mt. St. Helens, with 124.2 inches since October 1, 1990; normal for this site would be 115.0 inches.

## **RESERVOIRS:**

Reservoir storage is good, with reservoirs in Washington above average for March 1. Reservoir storage in the Yakima Basin was 925,300 acre feet, 133% of normal. Storage at other reservoirs include Roosevelt at 163% of average and the Okanogan reservoirs at 136% of March 1 normal. The power generation reservoirs contain the following: Coeur d'Alene Lake, 303,200 acre feet, or 137% of normal; Chelan Lake, 462,000 acre feet at 275% of average and 68% of capacity, and Ross Lake at 284% of average, and 62% of capacity.

## **STREAMFLOW:**

Forecasts for summer streamflow continue to decline and this month and varie from 150% of average for the Similkameen River to 49% of normal on Mill Creek in the Walla Walla River Basin. March forecasts for some west side streams include: Cedar River, 82%; Skagit River, 120%; and the Dungeness River, 80%. Some east side streams include the Yakima River at Parker 74%; the Wenatchee River at Peshastin, 100%; and the Okanogan River, 142%. February streamflows were generally above average in Washington. Streamflows were the following percent of normal; the Cowlitz River, 134%, the Walla Walla River, 101%; the Spokane River, 147%; the Columbia at the Canadian border, 145%. The Wenatchee River, with 195%, and the Similkameen River was the highest in the state, at 275%. The Okanogan River was 227%, and the Methow with 146% continued high.



SOURCE: Data compiled by SCS Field Personnel

JANUARY 1986 4.R.39641  
BASE A.B.39260

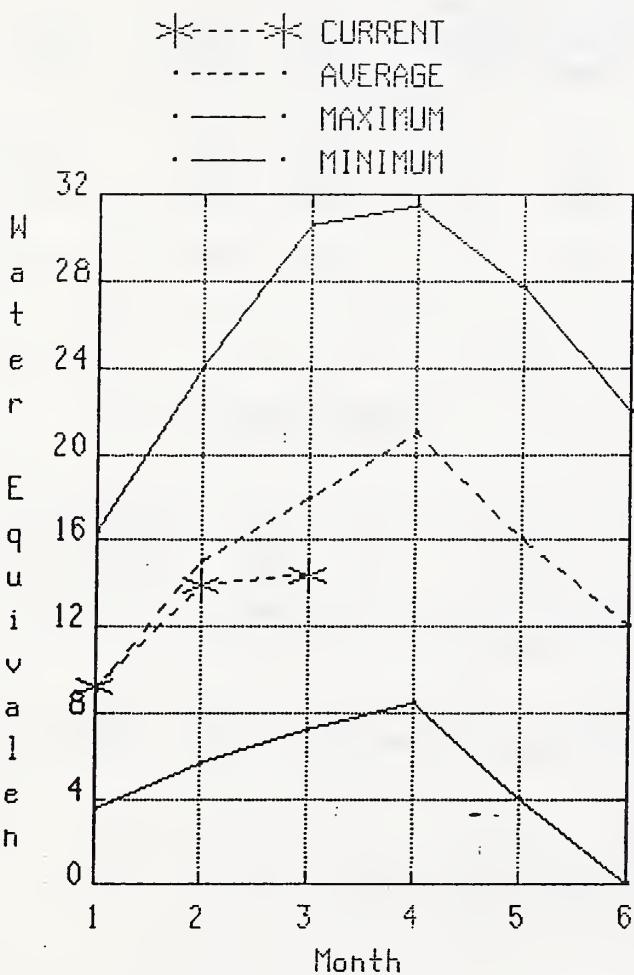
**SABIN'S SUMMARY OF  
SHOW COURSE DATA**

MARCH 1991

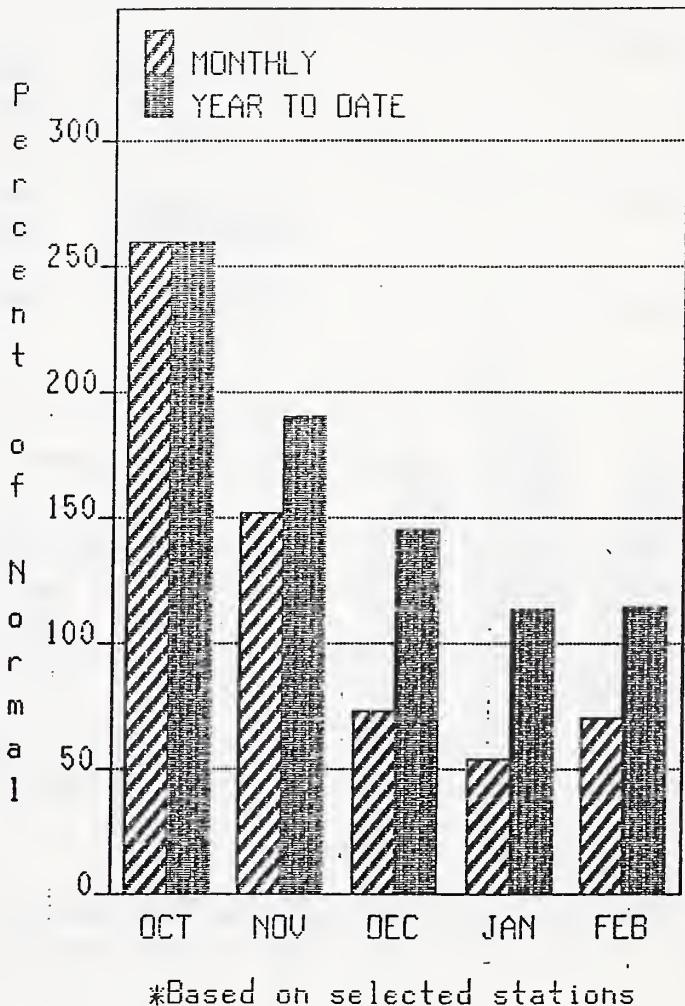
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST TEAR	AVERAGE 1961-85	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST TEAR	AVERAGE 1961-85							
<b>PEWEE OREILLE RIVER</b>																				
BENTON MEADOW	2370	2/28/91	6	2.5	6.7	6.0	ANTAHUM R.B.	3100	2/27/91	0	.0	4.7	4.9							
BEYLOW SPRING	4920	3/01/91	31	11.1	20.0	17.2	BIG BOULDER CREEK	3200	2/28/91	24	9.9	22.2	18.1							
BOYER MOUNTAIN	5250	3/05/91	49	14.2	20.8	22.3	BLEWETT PASS E2	4270	3/01/91	—	4.6	14.3	14.4							
BUNCHGRASS MEADOWS	5000	3/01/91	—	25.9E	25.8	25.0	BLEWETT PASS E2 PILLLOW	4270	3/01/91	—	7.29	18.7	22.2							
BUNCHGRASS HOLLOW	5000	3/01/91	—	24.6	25.9	25.0	BUMPING LAKE	3450	2/27/91	10	4.6	13.9	17.2							
HEART LAKE TRAIL	4800	2/25/91	46	15.2	19.6	19.5	BUMPING LAKE (NEW)	3400	2/27/91	14	7.0	17.0	18.1							
HODODOO SABIN	4650	2/25/91	119	45.1	44.0	43.9	CAYUSE PASS	4600	3/01/91	—	13.48	22.7	23.2							
HODODOO CREEK	5900	2/25/91	107	36.6	39.4	40.7	CORRAL PASS	4000	2/25/91	112	45.3	45.2	67.0							
LOOKOUT	5140	2/22/91	63	23.6	31.0	29.5	FISH LAKE	3370	2/28/91	53	21.4	35.5	32.1							
MELBOM CAW.	3100	2/27/91	27	9.4	16.0	14.3	FISH LAKE PILLLOW	3270	3/01/91	—	22.29	40.1	32.8							
SCHEWEITZER RIDGE	4200	3/01/91	—	34.4E	39.2	40.1	GREEK LAKE	4000	2/27/91	46	19.0	25.4	29.7							
<b>KETTLE RIVER</b>																				
BARNER CREEK CAW.	5300	2/27/91	57	19.7E	22.3	17.2	GREEK LAKE PILLLOW	4000	3/01/91	—	12.48	19.3	18.1							
BIG WHITE MTN CAN.	5510	2/27/91	51	17.6	14.9	16.3	GROUSE CAMP	5380	3/01/91	—	4.49	16.5	16.6							
CARMI	4100	2/25/91	20	4.3	3.3	6.1	LAKE CLE ELUM	2200	2/28/91	0	.0	4.5	8.1							
FARROW	CAN.	4000	2/24/91	25	9.1	8.9	LAKE LAKE	PILLLOW	5400	3/01/91	—	38.78	41.8	44.0						
MOHABEE PASS CAN.	4500	2/27/91	42	13.0E	14.3	12.2	OLALLIE E.S.	PILLLOW	3940	3/01/91	—	34.98	50.1	58.1						
TRAPPING CK LOW CAW.	3050	2/23/91	17	5.8	3.5	5.1	OLALLIE MEADOWS	3430	2/28/91	35	18.1	44.6	39.3							
TRAPPING CK UP CAW.	4460	2/23/91	25	6.8	6.5	9.1	OTANDEO PASS PILLLOW	3860	3/01/91	—	24.98	51.0	36.0							
<b>COLVILLE RIVER</b>																				
TOCO	3370	2/28/91	10	3.5	8.6	9.6	TUNNEL AVENUE	2450	2/27/91	24	10.4	20.7	19.8							
<b>SPOKANE RIVER</b>																				
ABOVE BURKE	4100	3/01/91	—	11.2E	17.6	19.0	WHITE PASS E.S. PILLLOW	4500	3/01/91	—	12.98	25.1	22.0							
FOURTH OF JULY SUM	3200	2/22/91	8	2.4	12.4	8.2	<b>ANTAHUM CREEK</b>													
LOOKOUT	5140	2/22/91	63	23.6	31.0	27.5	ANTAHUM R.B.	3100	2/27/91	0	.0	4.7	4.9							
LOST LAKE	4110	2/27/91	139	56.4	49.2	48.7	GREEN LAKE	4000	2/27/91	46	19.0	25.4	29.7							
MOBUQUITO RIDGE	5200	3/01/91	—	30.0E	36.3	33.7	GREEN LAKE PILLLOW	6000	3/01/91	—	12.48	15.3	18.1							
MOBUQUITO PILLOW	5200	3/01/91	—	30.2	36.7	34.0	<b>HILL CREEK</b>													
SHERMAN	3200	3/04/91	22	7.0	11.5	12.3	HILL CREEK	NICH RIDGE	PILLLOW	4980	3/01/91	—	9.48	14.8	26.1					
SUNSET	5540	3/01/91	—	28.3E	33.0	28.1	NICH RIDGE E2	PILLLOW	5530	3/01/91	—	17.18	28.2	27.1						
SUNSET PILLOW	3540	3/01/91	—	32.4	29.1	30.8	<b>LEWIS - CONLITI RIVERS</b>													
<b>WEHMAN LAKE</b>																				
QUARTZ PEAK	PILLOW	4700	3/01/91	—	13.2	20.4	—	CATUBE PASS	5300	2/25/91	112	43.3	45.2	67.0						
<b>OKAWOGAN RIVER</b>																				
ABERDEEN LAKE CAN.	4300	2/26/91	18	5.9	5.0	5.9	JUKE LAKE	PILLLOW	3200	3/01/91	—	14.48	42.7	25.7						
BREWDIA MINE CAN.	4800	2/27/91	36	10.8	8.4	11.9	LOWE PINE	PILLLOW	3800	3/01/91	—	11.48	28.1	37.3						
BROOKHORN CAN.	3200	2/26/91	18	6.8	6.1	8.0	PARADISE PARK	PILLLOW	5500	3/01/91	—	35.48	61.7	61.2						
EWERTST CAN.	4200	2/25/91	78	36.6	38.3	32.6	PIAZA PEAK	PILLLOW	5700	3/01/91	—	12.28	52.8	44.4						
FEEDZIEUT CK. MID CAN.	4690	2/28/91	39	12.0	9.5	13.2	POTATO HILL	PILLLOW	4500	3/01/91	—	12.58	25.0	24.7						
FREEZEOUT CK. TRAIL	3500	3/05/91	51	14.1	11.7	11.3	SCHEEP CANTON	PILLLOW	4050	3/01/91	—	19.78	41.4	39.3						
GREYBACK RES CAN.	5120	2/28/91	35	10.2	6.4	7.8	SPENCER MOH	PILLLOW	3400	3/01/91	—	4.48	37.4	24.8						
HAMILTON HILL CAN.	4890	2/23/91	43	14.4	13.7	13.7	SPRITY LAKE	PILLLOW	3100	3/01/91	—	1.08	15.5	13.1						
HARTH PASS	4500	2/28/91	128	44.8	36.7	37.6	WHITE PASS IS NOT ON FILE	PILLLOW	4220	3/01/91	—	22.28	40.0	45.2						
HARTH PASS PILLOW	4500	3/01/91	—	41.6E	46.1	47.1	WHITE PASS E.S. PILLLOW	4250	3/01/91	—	28.6E	35.5	32.1							
IBIWATOR LAKE CAN.	5500	3/01/91	37	10.0	4.3	6.8	WHITE PASS E.S. PILLLOW	4500	3/01/91	—	30.78	41.0	39.0							
LIGHTNING LAKE CAN.	4000	2/26/91	37	12.2	11.9	11.9	<b>WHITE RIVER</b>													
LOST HORSE MTN CAN.	4300	2/27/91	43	14.0	7.5	13.2	CATUBE PASS	5300	2/25/91	112	43.3	45.2	67.0							
MCCULLOCAN CAN.	4200	2/28/91	23	6.4	4.8	6.4	CORRAL PASS	4000	3/01/91	—	28.6E	35.5	34.1							
MECHAM LAKE CAN.	4790	2/24/91	32	10.4	8.3	9.0	CORRAL PASS PILLLOW	4000	3/01/91	—	24.98	35.5	32.1							
MISSION CREEK CAN.	5800	3/01/91	61	20.4	21.2	17.2	HORSE LAKE	PILLLOW	5400	3/01/91	—	30.78	41.8	44.0						
MONTAGE PASS CAN.	4500	2/24/91	42	12.0E	14.8	12.2	<b>GREEN RIVER</b>													
MONTON CREEK CAN.	3900	2/24/91	75	7.1	5.3	10.7	COUGAR MTN.	PILLLOW	3200	3/01/91	—	9.18	21.4	14.4						
MUTTON CREEK E1	3700	2/24/91	24	7.2	6.1	11.9	CRABB MOUNTAIN E2	PILLLOW	2900	2/24/91	0	.0	7.0	14.6						
ODAYA LAKE CAN.	4400	2/28/91	21	8.8	4.4	5.1	LEMMON CREEK	PILLLOW	3100	2/24/91	34	10.8	20.4	14.1						
POSTILL LAKE CAN.	4500	3/01/91	30	8.3	3.6	7.4	LYNN LAKE	PILLLOW	4000	2/24/91	34	13.5	21.2	22.8						
RUSTY CREEK	4000	2/24/91	4	1.6	3.7	6.5	BAHNILL RIDGE	PILLLOW	4700	2/24/91	47	17.7	30.8	30.5						
SALMON NOMB PILLOH	4500	3/01/91	—	4.7E	6.6	12.6	STANPEO PASS PILLLOW	3860	3/01/91	—	24.93	51.0	36.0							
SILVER STAR MTN CAN.	4000	2/23/91	70	20.4	22.4	24.3	TWIN CAMP	PILLLOW	4100	2/24/91	40	14.8	30.3	21.1						
SUMMERLAND RES CAN.	4200	2/28/91	28	8.6	4.2	8.7	<b>SHOQUALMIE RIVER</b>													
TUNDRA PASS	4500	2/28/91	128	44.8	36.7	37.6	ALPINE MEADOWS	PILLLOW	3500	2/25/91	65	31.5	48.5	34.9						
HARTH PASS PILLOW	4500	3/01/91	—	41.6E	46.1	47.1	KRONOMA MINE	PILLLOW	2400	2/27/91	31	15.2	37.1	—						
HUTTON CREEK E1	5700	2/26/91	24	7.2	6.1	11.9	OLALLIE E.S. PILLLOW	3960	3/01/91	—	34.98	50.1	58.1							
RUSTY CREEK	4000	2/26/91	4	1.6	3.7	6.5	OLALLIE MEADOWS	PILLLOW	3630	2/28/91	35	18.1	44.6	39.3						
WADEY CREEK	4000	2/27/91	52	18.6	14.0	20.0	OLMIE PASS	PILLLOW	3250	2/27/91	10	4.7	30.3	—						
<b>ENTIAT RIVER</b>																				
BLIEF E2	PILLION	1600	2/28/91	0	11.0	5.1	6.9	BEAVER CREEK TRAIL	PILLLOW	2200	3/02/91	42	7.7	12.4	13.0					
POPE RIDGE	PILLION	3540	3/01/91	—	11.48	15.6	15.6	BEAVER PASS	PILLLOW	3680	3/04/91	78	22.7	24.2	25.5					
<b>HEWATCHEE RIVER</b>																				
GENIE-MILL CREEK	3170	2/27/91	52	19.8	31.6	24.8	BROWN TOP	AM	6000	2/29/91	127	74.2	56.0	52.9						
GLEWE PASS E2	4270	3/01/91	—	4.4E	16.3	14.4	CLOUDY PASS	AM	4500	2/25/91	124	59.5	39.2	37.8						
BLEWETT PASS E2	4270	3/01/91	—	7.2E	18.6	22.2	DEVILS PASS	AM	5000	2/28/91	149	59.5	39.2	37.8						
CHERLAUN K.C.B.	2500	2/27/91	17	6.4	7.3	11.0	FREEZEOUT CK. TRAIL	AM	3500	2/28/91	51	14.1	11.7	11.3						
FISH LAKE	PILLLOW	3700	3/01/91	—	22.2E	40.4	32.8	WADEY PASS	AM	4200	2/28/91	128	44.6	34.7	37.6					
LTMH LAKE	PILLLOW	5900	3/01/91	—	147	57.1	56.2	WADEY PASS	PILLLOW	3700	2/27/91	154	29.0	25.0	24.1					
LTMH LAKE	PILLLOW	5900	3/01/91	—	72.2E	43.3	55.9	ROCKY CREEK	AM	2100	2/27/91	52	29.0	25.0	24.1					
LTMH LAKE	PILLLOW	5900	3/01/91	—	72.2E	43.3	55.9	SCHREIBERS HORN	AM	3400	2/27/91	79	41.0	43.0	49.7					
MERRITZ	2140	2/27/91	24	9.5	14.5	14.7	BF THUNDER CK	AM	2200	2/27/91	—	10.2E	5.0	9.0						
MISBON RIDGE	5000	2/28/91	20	7.3	11.2	—	HATSON LAKES	AM	4500	2/27/91	76	50.0	70.0	54.2						
STEVENS PASS PILLOW	4070	3/01/91	—	34.1E	53.3	37.8	<b>BAKER RIVER</b>													
STEVENS PASS BAND 80	3700	2/27/91	59	24.1	35.5	31.9	DOCK BUTTE	AM	3800	2/27/91	86	46.0	60.0	57.7						
TROUGH E2	PILLION	5316	3/01/91	—	11.2E	2.6	11.0	EAST PASS	AM	3200	2/27/91	148	39.0	77.0	45.3					
UPPER WHEELER	4400	2/28/91	2	6	—	9.6	JASPER PASS	AM	3400	2/27/91	192	10.0	74.0	77.1						
UPPER WHEELER PILLOW	4400	3/01/91	—	7.98	7.3	15.1	MT. LINDEN	AM	5000	2/27/91	135	71.0	65.0							

# SPOKANE

## Mountain snowpack\* (inches) SPOKANE RIVER BASIN



## Precipitation\* (percent of normal) SPOKANE RIVER BASIN



\*Based on selected stations

## WATER SUPPLY

### OUTLOOK:

Streamflow on the Spokane River was 147% of normal for February. March 1 storage in Coeur d'Alene Lake was 303,200 acre feet, 137% of normal. Forecasted summer runoff for the Spokane River Basin is 90% of normal. This is down from 98% last month. The forecast is based on a snowpack 81% of average and a water year-to-date precipitation value 115% of normal. Precipitation for February was 70% of average. Temperatures in the basin were 7 degrees above normal during February.

For more information contact your local Soil Conservation Service office.

## SPOKANE RIVER BASIN

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	<----- DRIER ----- FUTURE CONDITIONS ----- WETTER ----->				25 YR. (1000AF)		
				CHANCE OF EXCEEDING *				
		90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	10% (1000AF)			
SPOKANE nr Post Falls (1,2)	APR-SEP	1610	2120	2540	90	2960	3470	2820
	APR-JUL	1550	2050	2450	90	2850	3350	2723
SPOKANE at Long Lake (2)	APR-JUL	1620	2290	2740	90	3190	3860	3045

## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF LAST YR.	
		THIS	LAST					
		YEAR	YEAR	AVG.				
COEUR D'ALENE	291.2	303.2	172.2	220.9	Spokane River	18	74	80

\* 90%, 70%, 50%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

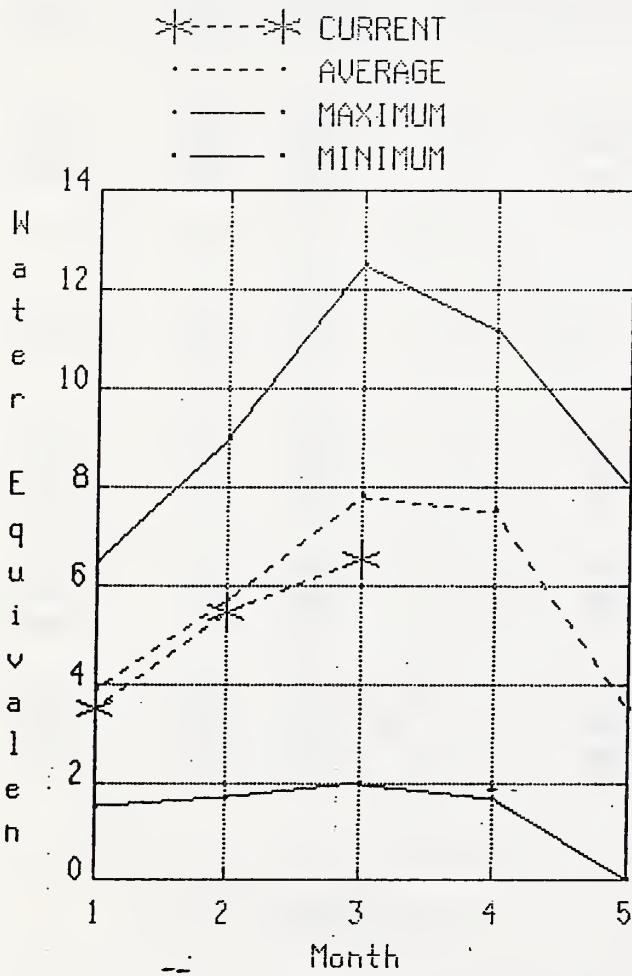
The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

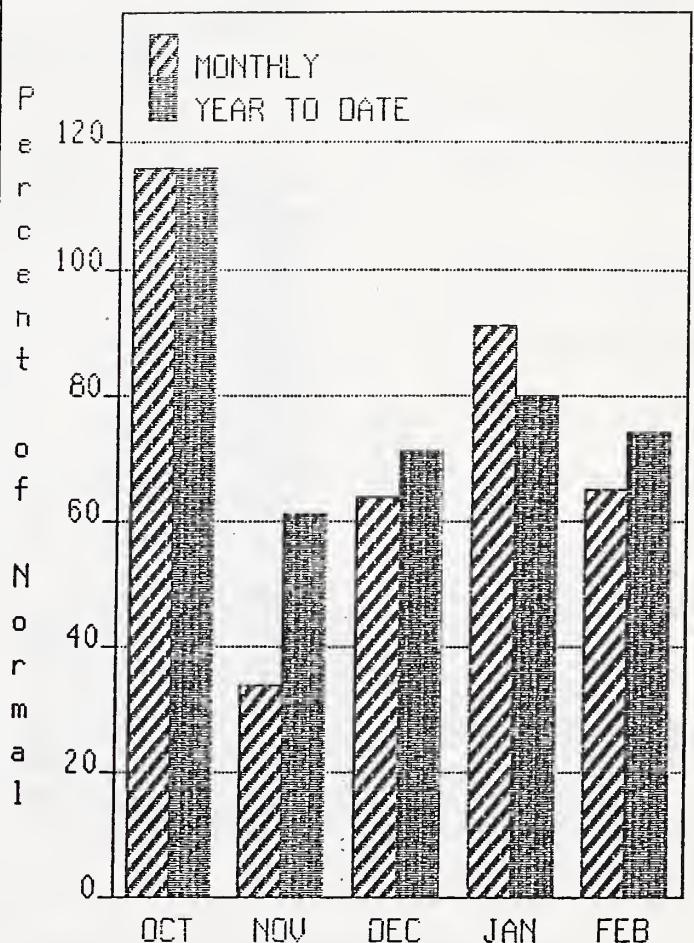
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# COLVILLE - PEND OREILLE

## Mountain snowpack\* (inches) COLVILLE - PEND OREILLE RIVER BASIN



## Precipitation\* (percent of normal) COLVILLE - PEND OREILLE RIVER BASINS



\*Based on selected stations

## WATER SUPPLY

### OUTLOOK:

Precipitation during February was 63% of average, bringing the water year-to-date to 77% of normal. March 1 snow cover is 87% of average on the Pend Oreille, 97% on the Kettle, and 37% on the Colville River. Snowpack at Bunchgrass Meadow SNOTEL site was 24.8 inches of water, the average March 1 reading is 25.1.

February streamflow was 108% of normal on the Pend Oreille River, 145% on the Columbia at the International Boundary, and 185% on the Kettle River. The forecast for the Kettle River streamflow is 110% of normal, the Pend Oreille 100%, down from 111% last month, and the Colville River, 65% of normal for the summer runoff period. Temperatures averaged 6 degrees above normal for February.

For more information contact your local Soil Conservation Service Office.

## COLVILLE - PEND OREILLE RIVER BASINS

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	FUTURE CONDITIONS						25 YR. (1000AF)	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER			
		PERIOD	90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
PEND OREILLE b1 Box Canyon (1,2)	APR-SEP	11800	14200	15100	100		16000	18400	15170
	APR-JUL	10300	13000	13800	99		14600	16800	13900
	APR-JUN	9330	11200	11900	99		12600	14500	11960
CHAMOKANE CK nr Long Lake	MAY-AUG	0.2	3.8	6.2	56		8.6	12.2	11.1
COLVILLE at Kettle Falls	APR-SEP	51	75	91	65		107	131	140
	APR-JUL	46	68	83	65		98	120	128
	APR-JUN	44	64	77	65		90	110	118
KETTLE nr Laurier	APR-SEP	1510	1860	2100	110		2340	2690	1907
	APR-JUL	1420	1760	1990	110		2220	2550	1807
	APR-JUN	1230	1570	1780	110		1990	2290	1622
COLUMBIA at Birchbank (1,2)	APR-SEP	49200	53500	55500	125		57500	61800	44390
	APR-JUL	39300	42700	44300	125		45900	49300	35440
	APR-JUN	28500	31000	32100	125		33200	35700	25650
COLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	67500	74600	77800	117		81000	88100	66460
	APR-JUL	56600	62500	65200	117		67900	74100	55730
	APR-JUN	44100	48700	50800	117		52900	57700	43420

## RESERVOIR STORAGE (1000AF) WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
ROOSEVELT	5232.0	4511.8	4434.2	2763.0	Colville River	2	19	19
BANKS		NO REPORT			Pend Oreille River	11	79	81
					Kettle River	9	107	97

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

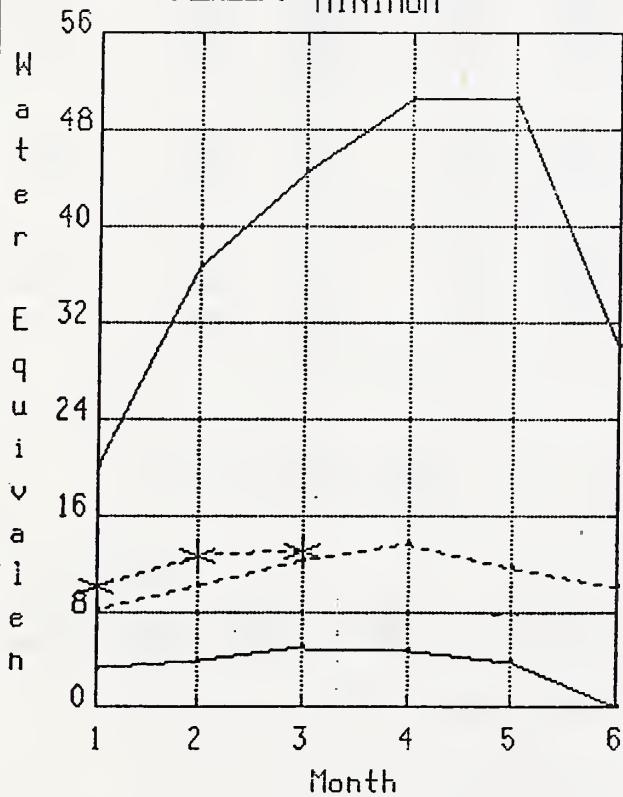
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

# OKANOGAN AND METHOW

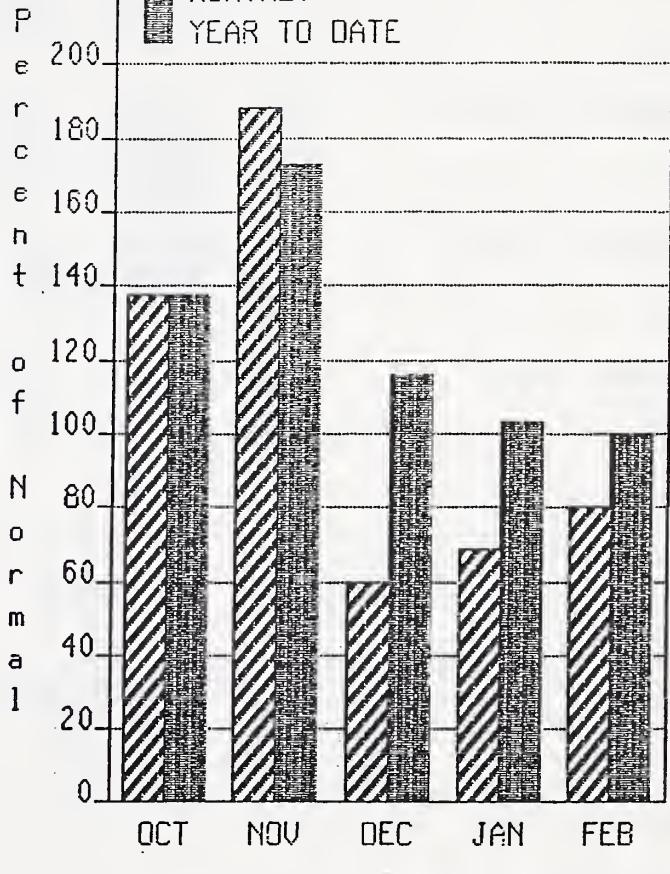
## Mountain snowpack\* (inches) OKANOGAN - METHOW RIVER BASINS

\*----> CURRENT  
 ····· AVERAGE  
 ·—· MAXIMUM  
 ·—· MINIMUM



## Precipitation\* (percent of normal) OKANOGAN - METHOW RIVER BASINS

MONTHLY  
 YEAR TO DATE



\*Based on selected stations

## WATER SUPPLY OUTLOOK:

February precipitation in the Okanogan-Methow was 77% of normal, with water year-to-date 99% of average. February streamflow on the Methow River was 146% of normal, 227% on the Okanogan River, and 275% on the Similkameen. Summer runoff for the area's small streams is expected to be below normal, with Salmon Meadows SNOTEL having 4.9 inches of water against a normal of 12.6. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 61.6 inches of water content in the pack. April-September runoff forecast for the Okanogan River is 142% of normal; the Similkameen River, 150%, the highest in the state; and the Methow River, 105% of normal, down from 125% last month. March 1 snow cover was 106% of average on the Okanogan, and 96% for the Methow Basin. Temperatures were 8 degrees above normal for the month. Storage in the Conconully Reservoirs is 19,000 acre feet, which is 81% of capacity and 136% of March 1 average.

For more information contact your local Soil Conservation Service office.

## OKANOGAN + METHOW RIVER BASINS

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR. (1000AF)	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER ----->			
		90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	% AVG. (%)	30% (1000AF)	10% (1000AF)		
SIMILKAMEEN nr Nighthawk (1)	APR-SEP	1750	2050	2150	150	2250	2550	1432	
	APR-JUL	1630	1900	1990	149	2080	2370	1333	
	APR-JUN	1380	1650	1720	152	1790	2010	1129	
OKANOGAN RIVER nr Tonasket (1)	APR-SEP	1740	2160	2360	142	2560	2960	1661	
	APR-JUL	1580	1950	2130	142	2310	2670	1501	
	APR-JUN	1320	1660	1790	143	1920	2240	1256	
METHOW RIVER nr Pateros (1)	APR-SEP	695	945	1030	105	1110	1350	980	
	APR-JUL	645	875	950	105	1030	1250	987	
	APR-JUN	545	750	815	106	880	1060	770	

## RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
CONCONULLY LAKE (SALMON)	10.5	9.7	8.3	8.0	Okanogan River	28	121	106
CONCONULLY RESERVOIR	13.0	9.3	7.4	6.0	Methow River	4	120	96

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The average is computed for the 1961-1985 base period.

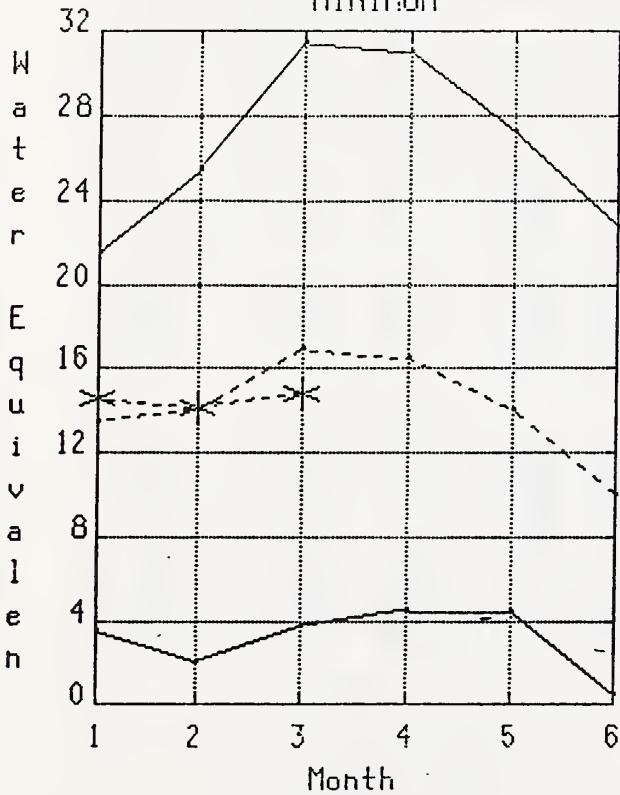
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# WENATCHEE AND CHELAN

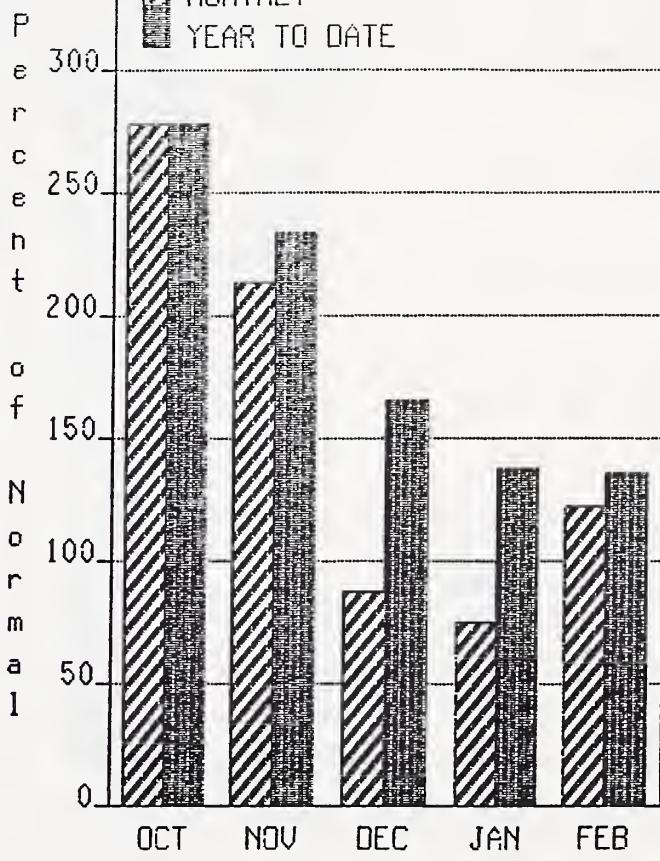
## Mountain snowpack\* (inches) WENATCHEE - CHELAN RIVER BASINS

←→ CURRENT  
 ··· AVERAGE  
 — MAXIMUM  
 - - MINIMUM



## Precipitation\* (percent of normal) WENATCHEE - CHELAN RIVER BASINS

MONTHLY  
 YEAR TO DATE



\*Based on selected stations

## WATER SUPPLY OUTLOOK:

Snowpack continues low along Colockum Ridge with only 48% of average in the Squilchuck - Stemilt drainage. March 1 snowpack in the Wenatchee Basin is 80%, down from 92% of average and the Chelan Basin 128%, down from 144%. Reservoir storage in Lake Chelan is 462,000 acre feet or 275% of March 1 average and 68% of capacity. Lyman Lake SNOTEL had the most snow water with 72.2 inches of water, this site would normally have 55.9 inches. Runoff for the Entiat River is forecast to be 100% of normal for the summer. Summer forecasts for the Chelan River are for 112%, Wenatchee River's runoff 100%, and 50% on the Squilchuck-Stemilt. Streamflow for February on the Chelan River was 164% of average and the Wenatchee River was 212% of normal. Precipitation during February was 122% of normal in the basin and 136% for the year-to-date.

For more information contact your local Soil Conservation Service office.

WENATCHEE - CHELAN RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS				NETTER			25 YR. (1000AF)	
		<---- DRIER -----		CHANCE OF EXCEEDING *		-----				
		90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	% AVG. (%)	30% (1000AF)	10% (1000AF)			
CHELAN RIVER at Chelan (1)	APR-SEP	1030	1230	1320	112	1410	1610	1182		
	APR-JUL	905	1030	1160	112	1240	1410	1040		
	APR-JUN	715	855	915	112	975	1110	815		
STEHEKIN R. at Stehekin	APR-SEP	820	895	930	110	975	1040	844		
	APR-JUL	695	750	785	110	820	875	714		
	APR-JUN	530	570	600	111	630	670	541		
ENTIAT RIVER nr Ardenvoir	APR-SEP	184	210	230	99	250	275	233		
	APR-JUL	176	200	220	100	240	265	221		
	APR-JUN	138	158	172	101	186	205	171		
WENATCHEE R. at Peshastin	APR-SEP	1170	1480	1700	101	1920	2230	1678		
	APR-JUL	1040	1330	1520	100	1720	2000	1516		
	APR-JUN	835	1060	1220	100	1380	1610	1216		
STEMILT nr Wenatchee (miners in)	MAY-SEP	25	51	69	50	87	113	138		
ICICLE CREEK nr Leavenworth	APR-SEP	255	325	370	100	420	490	370		
	APR-JUL	230	295	340	100	385	450	340		
	APR-JUN	184	235	270	100	305	355	270		
COLUMBIA R. b1 Rock Island Dam (2)	APR-SEP	74100	81000	85600	118	90200	97100	72250		
	APR-JUL	62500	69300	72200	118	76100	81900	61050		
	APR-JUN	48700	53200	56300	118	59400	63900	47730		

RESERVOIR STORAGE (1000AF)				WATERSHED SNOWPACK ANALYSIS				
RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
	THIS YEAR	LAST YEAR	AVG.	Avg'D			LAST YR.	AVERAGE
CHELAN LAKE	676.1	462.0	303.1	168.1	Chelan Lake Basin	3	111	128
					Entiat River	2	56	52
					Wenatchee River	9	73	82
					Squilchuck Creek	0	0	0
					Stemilt Creek	2	77	49
					Colockum Creek	1	8	2

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The average is computed for the 1961-1985 base period.

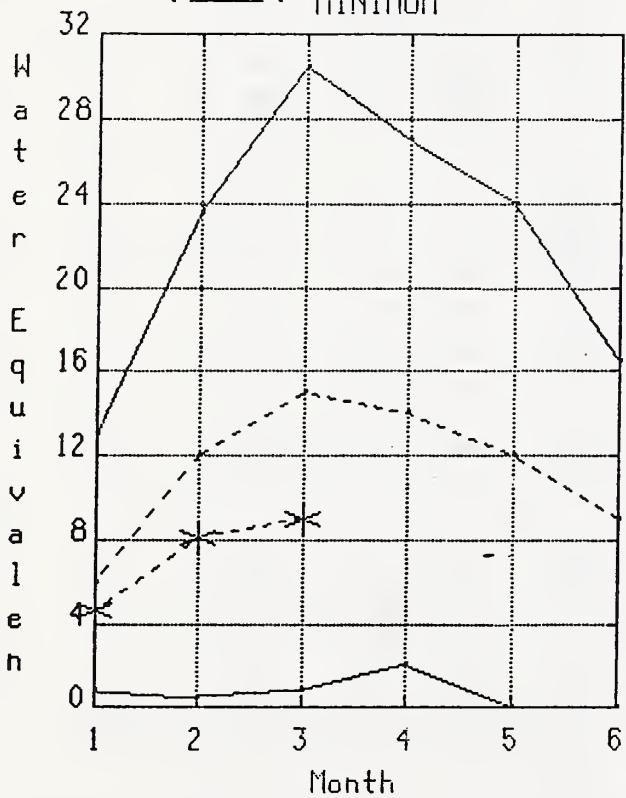
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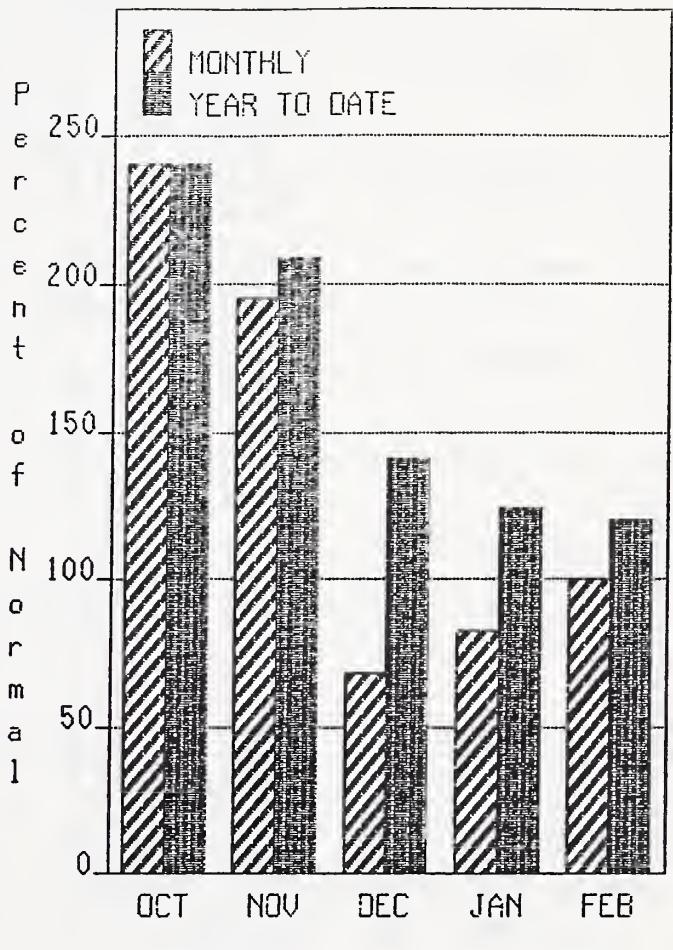
# YAKIMA

## Mountain snowpack\* (inches) YAKIMA RIVER BASIN

\*---> CURRENT  
 - - - AVERAGE  
 - - MAXIMUM  
 - - MINIMUM



## Precipitation\* (percent of normal) YAKIMA RIVER BASIN



\*Based on selected stations

## WATER SUPPLY

**OUTLOOK:** February precipitation was 100% of normal and 120% for the water year-to-date. The outlook for irrigation water for the summer is still good with March 1 reservoir storage for the five major reservoirs at 925,300 acre feet. March 1 snowpack is 60%, down from 68% of average on February 1, based upon 19 snow courses and SNOTEL readings. March 1 summer streamflow forecasts for the Yakima Basin vary throughout the basin as follows: the Yakima River at Cle Elum, 80%; Naches River, 77%; the Yakima River at Parker, 74%; Ahtanum Creek, 75%, and Tieton River 78%. February streamflows were high on some streams with the Yakima River at Martin at 212% of normal, 213% on the Yakima near Cle Elum, and 195% on the Naches River. Temperatures were five degrees above average for February. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U. S. Bureau of Reclamation's forecast for the total water supply available which includes adjustments for reservoir operation and irrigation return flow.

YAKIMA RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR.	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER ----->			
		90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	(X AVG.)	30% (1000AF)	10% (1000AF)		
YAKIMA RIVER at Martin (1)	APR-SEP	93	106	112	82	118	131	136	
	APR-JUL	86	98	104	83	110	122	126	
	APR-JUN	76	87	92	82	97	108	112	
YAKIMA RIVER at Cle Elum (2)	APR-SEP	655	720	760	80	800	865	951	
	APR-JUL	585	640	675	80	710	765	846	
	APR-JUN	510	560	590	80	625	670	735	
YAKIMA RIVER nr Parker (2)	APR-SEP	1110	1370	1540	74	1710	1970	2075	
	APR-JUL	990	1220	1380	74	1540	1770	1862	
	APR-JUN	880	1030	1220	74	1360	1560	1643	
KACHESS RIVER nr Easton (1)	APR-SEP	83	108	107	80	115	131	133	
	APR-JUL	72	86	92	81	98	113	114	
	APR-JUN	65	77	83	81	89	101	102	
CLE ELUM RIVER nr Roslyn (1)	APR-SEP	305	355	375	82	395	445	459	
	APR-JUL	275	320	340	82	360	405	417	
	APR-JUN	235	275	290	82	305	345	353	
BUMPING RIVER nr Nile (1)	APR-SEP	71	98	110	79	122	149	139	
	APR-JUL	65	90	101	79	112	137	128	
	APR-JUN	54	75	84	79	93	114	106	
AMERICAN RIVER nr Nile	APR-SEP	71	86	96	79	106	121	121	
	APR-JUL	65	79	88	79	97	111	112	
	APR-JUN	55	67	75	80	83	95	94	
T1ETON RIVER at Tieton (1)	APR-SEP	119	169	191	78	215	265	244	
	APR-JUL	102	144	163	78	182	225	208	
	APR-JUN	82	117	132	79	148	182	168	
NACHES RIVER nr Naches (2)	APR-SEP	465	580	660	77	740	855	860	
	APR-JUL	415	525	595	76	665	775	779	
	APR-JUN	360	450	510	76	570	660	667	
AHTANUM CREEK nr Tampico (2)	APR-SEP	17.0	28	35	74	42	53	47	
	APR-JUL	17.0	26	33	77	40	49	43	
	APR-JUN	14.0	22	28	76	34	42	37	

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF		
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.	AVERAGE
KEECELUS	157.8	134.7	116.6	105.0	Yakima River	19	58	60	
KACHESS	239.0	222.0	152.9	179.0	Ahtanum Creek	2	62	50	
CLE ELUM	436.9	390.4	223.0	273.0					
BUMPING LAKE	33.7	27.2	10.1	10.0					
RIMROCK	198.0	151.0	135.7	130.0					

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

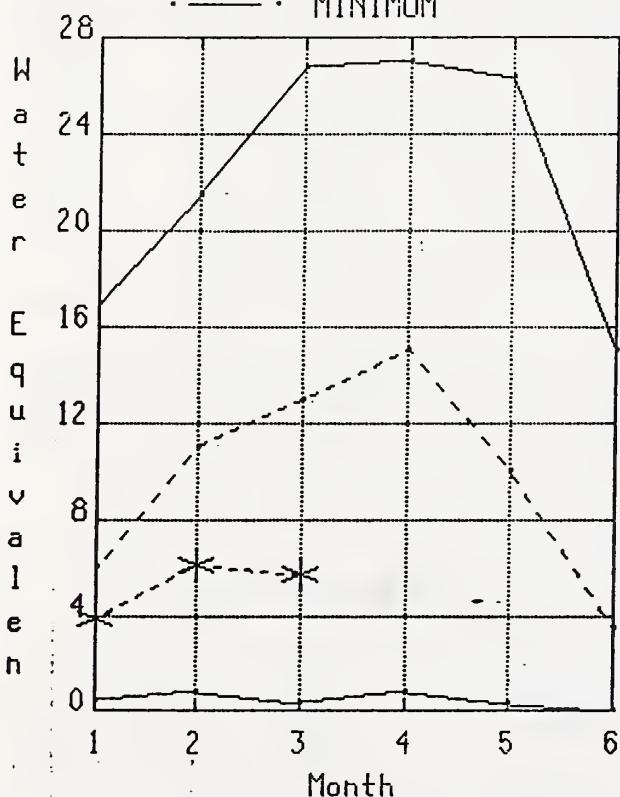
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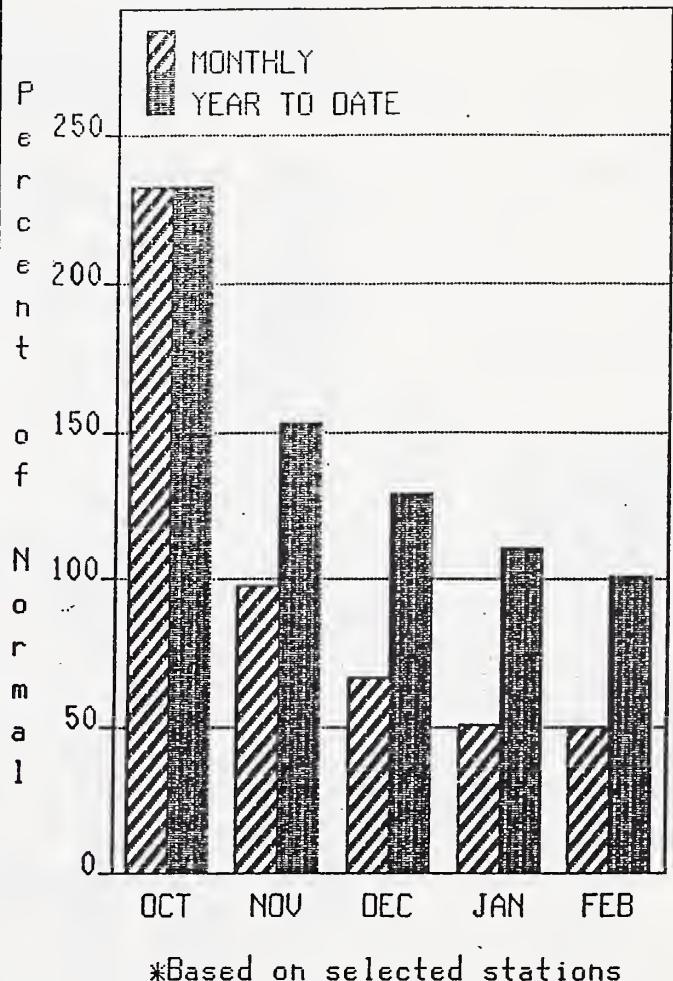
# WALLA WALLA

## Mountain snowpack\* (inches) WALLA WALLA RIVER BASIN

>---->  
 CURRENT  
 ····· AVERAGE  
 ·—· MAXIMUM  
 -—· MINIMUM



## Precipitation\* (percent of normal) WALLA WALLA RIVER BASIN



## WATER SUPPLY OUTLOOK:

March 1 snowpack is at 50%, up from 48% of normal last month. February streamflow was 101% of normal on the Walla Walla River, 64% for the Snake River, and 92% on the Grande Ronde River near Troy. February precipitation was 50% of average bringing the water year-to-date precipitation to 101% of normal. The forecast is for 73% of average streamflow in the Walla Walla River for the coming summer, the Grande Ronde and Snake Rivers, 60%, and 49% for Mill Creek, down from 61% last month. Temperatures were 6 degrees above average for February.

For more information contact your local Soil Conservation Service office.

WALLA WALLA RIVER BASIN

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR. (1000AF)	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		NETTER ----->			
		90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	% AVG. (1000AF)	30% (1000AF)	10% (1000AF)		
GRANDE RONDE at Troy (1)	MAR-JUL	420	725	920	61	1060	1360	1512	
	APR-SEP	440	700	825	60	950	1230	1369	
SNAKE b1 Lower Granite Dam (1,2)	APR-JUL	6430	11400	13700	60	16000	21000	22760	
	APR-SEP	7230	12800	15400	60	18000	23600	25578	
MILL CREEK at Walla Walla	APR-SEP	1.4	5.8	8.8	50	11.8	16.2	17.7	
	APR-JUL	1.2	5.6	8.6	49	11.6	16.0	17.6	
	APR-JUN	1.2	5.6	8.5	49	11.4	15.8	17.3	
SF WALLA WALLA nr Milton Freewater	APR-JUL	30	36	40	73	44	50	55	
COLUMBIA R. at The Dalles (2)	APR-SEP	82000	93000	99700	98	107000	118000	102000	
	APR-JUL	70100	79400	85700	98	92000	101000	87100	
	APR-JUN	56400	63900	69000	98	74100	81600	70470	

RESERVOIR STORAGE (1000AF) WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS	LAST					
		YEAR	YEAR	AVG.				
—	—	—	—	—	Mill Creek	2	62	50

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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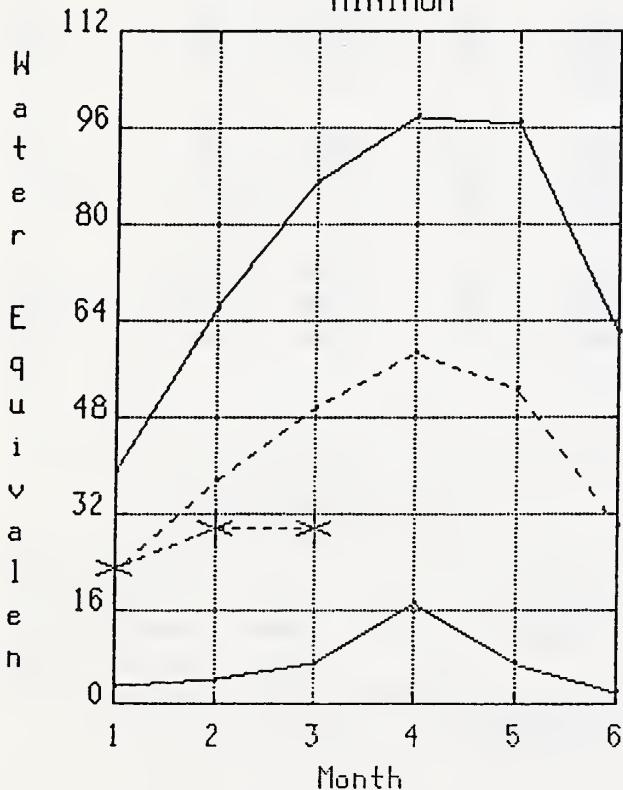
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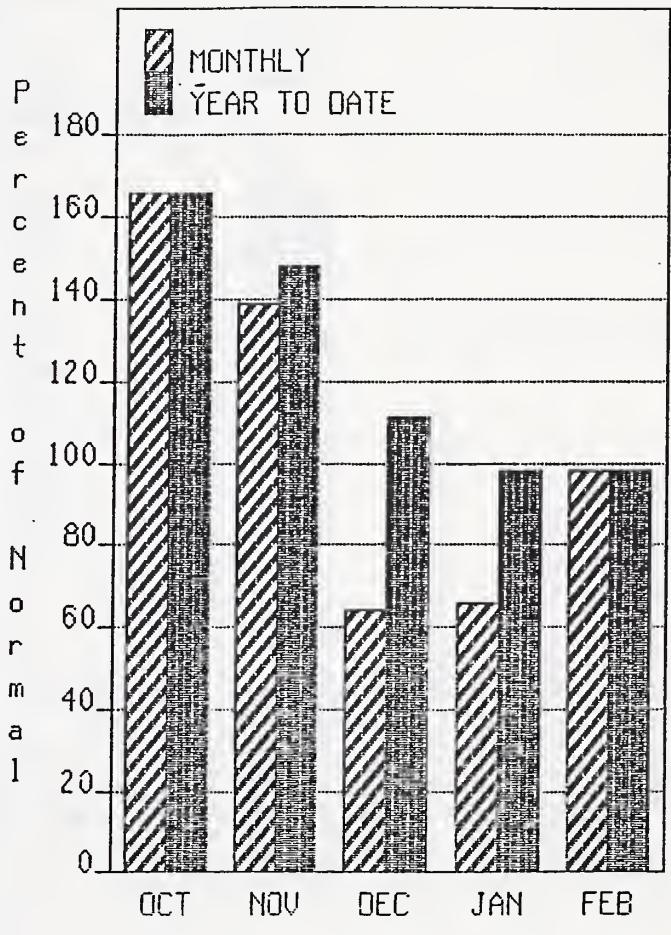
# COWLITZ AND LEWIS

## Mountain snowpack\* (inches) COWLITZ - LEWIS RIVER BASINS

CURRENT  
 AVERAGE  
 MAXIMUM  
 MINIMUM



## Precipitation\* (percent of normal) COWLITZ - LEWIS RIVER BASINS



\*Based on selected stations

## WATER SUPPLY OUTLOOK:

March 1 snow cover for the Cowlitz-Lewis River Basin is 60%, down from 84% of normal. The Paradise Park SNOTEL has the maximum water content for the basin with 55.6 inches of water, normal March 1 water content is 61.2 inches. Forecasts for summer runoff in the Lewis River are 85%, down from 100%, and for the Cowlitz River, 96%, down from 105%. February precipitation was 98% of normal, bringing the water year-to-date precipitation to 98% of average. February streamflow on the Cowlitz River was 134% of average, and 169% on the Lewis River. Temperatures were five degree above normal for February.

For more information contact your local Soil Conservation Service office.

COWLITZ + LEWIS RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR.	
		CHANCE OF EXCEEDING *				30%	10%		
		90%	70%	50% (MOST PROBABLE)	(% AVG.)				
LEWIS RIVER at Ariel (2)	APR-SEP	690	910	1060	85	1210	1430	1244	
	APR-JUL	610	800	930	86	1060	1250	1084	
	APR-JUN	540	710	825	86	940	1110	958	
COWLITZ R. b1 Mayfield Dam (2)	APR-SEP	1250	1670	1960	96	2250	2670	2036	
	APR-JUL	1100	1470	1720	97	1970	2340	1782	
	APR-JUN	950	1270	1480	97	1690	2010	1524	
COWLITZ R. at Castle Rock (2)	APR-SEP	1720	2270	2650	99	3030	3580	2687	
	APR-JUL	1500	1980	2310	99	2640	3120	2343	
	APR-JUN	1300	1720	2000	99	2280	2700	2015	

RESERVOIR STORAGE (1000AF) WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF LAST YR. AVERAGE
		THIS	LAST				
		YEAR	YEAR	AVG.			
					Cowlitz River	7	64
					Lewis River	4	33
							37

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

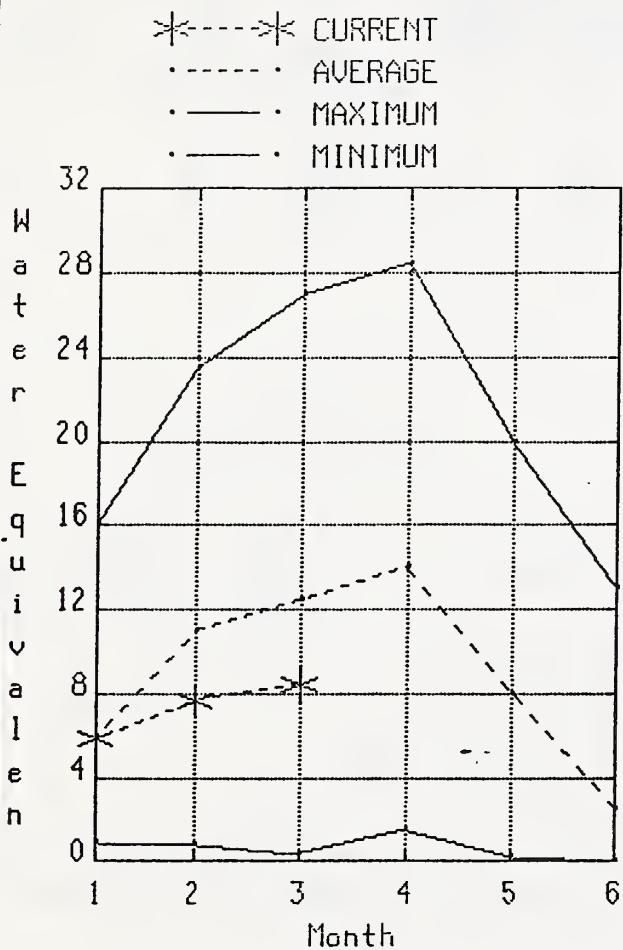
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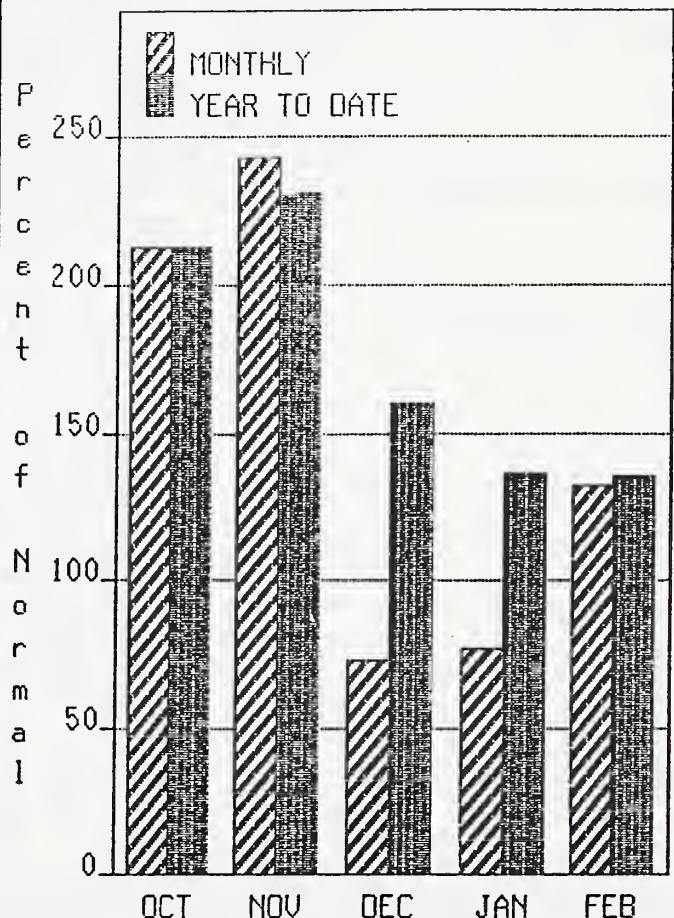
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# WHITE - GREEN

## Mountain snowpack\* (inches) WHITE - GREEN RIVER BASINS



## Precipitation\* (percent of normal) WHITE - GREEN RIVER BASINS



\*Based on selected stations

## WATER SUPPLY

### OUTLOOK:

February precipitation was 132% of normal, bringing the water year-to-date to 135% of average. March 1 snowpack was 77% of normal on the White River and 60% in the Green Basin. Water content on March 1 at the Stampede Pass SNOTEL, at an elevation of 3860 feet, was 26.9 inches, this site has a March 1 average of 36.0 inches. Summer runoff is forecasted to be 82% on the Green River down from 88% last month, and 82% of normal on the Cedar River down from 96%. Temperatures were 4 degrees above average for February.

For more information contact your local Soil Conservation Service office.

## WHITE - GREEN RIVER BASINS

## STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR.	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER ----->			
		90%	70%	50% (MOST PROBABLE)	(1000AF)	30%	10%		
		(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(1000AF)	
GREEN R b1 Howard Hanson Dam (2)	APR-SEP	168	210	240	82	270	310	291	
	APR-JUL	150	189	215	82	240	290	261	
	APR-JUN	136	171	195	83	220	255	236	
CEDAR RIVER nr Cedar Falls	APR-SEP	53	67	76	82	85	99	93	

## RESERVOIR STORAGE (1000AF) WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF LAST YR. AVERAGE
		THIS YEAR	LAST YEAR	AVG.			
					White River	3	78
					Green River	7	51
					Cedar River	0	0

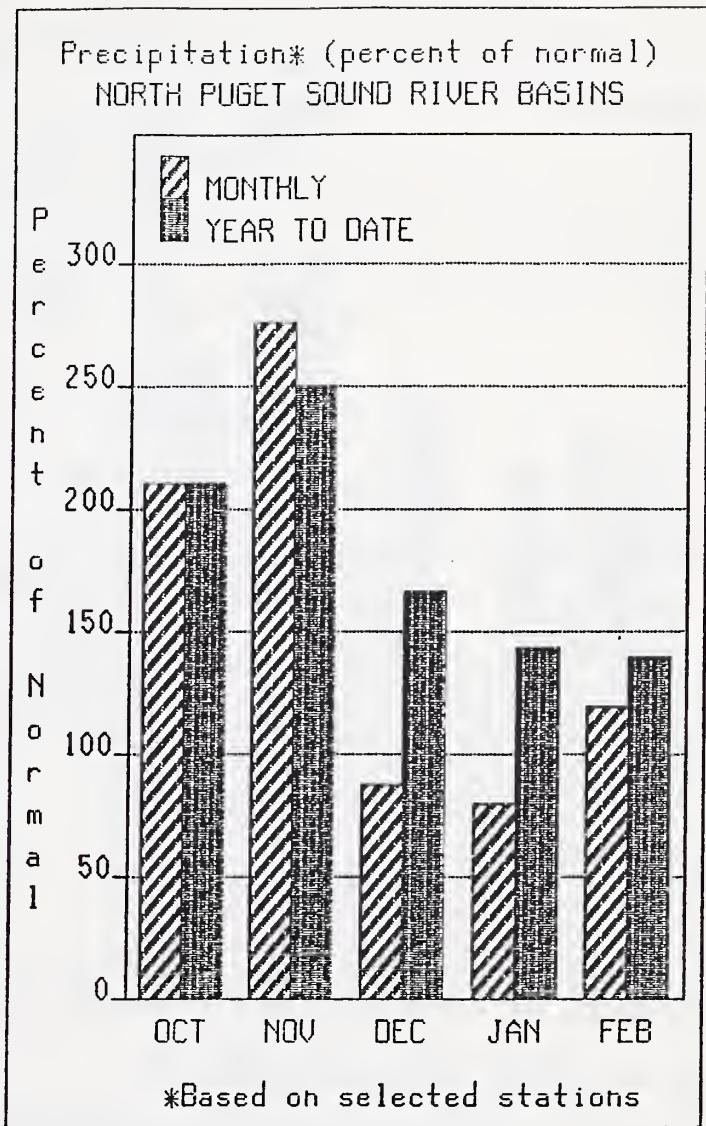
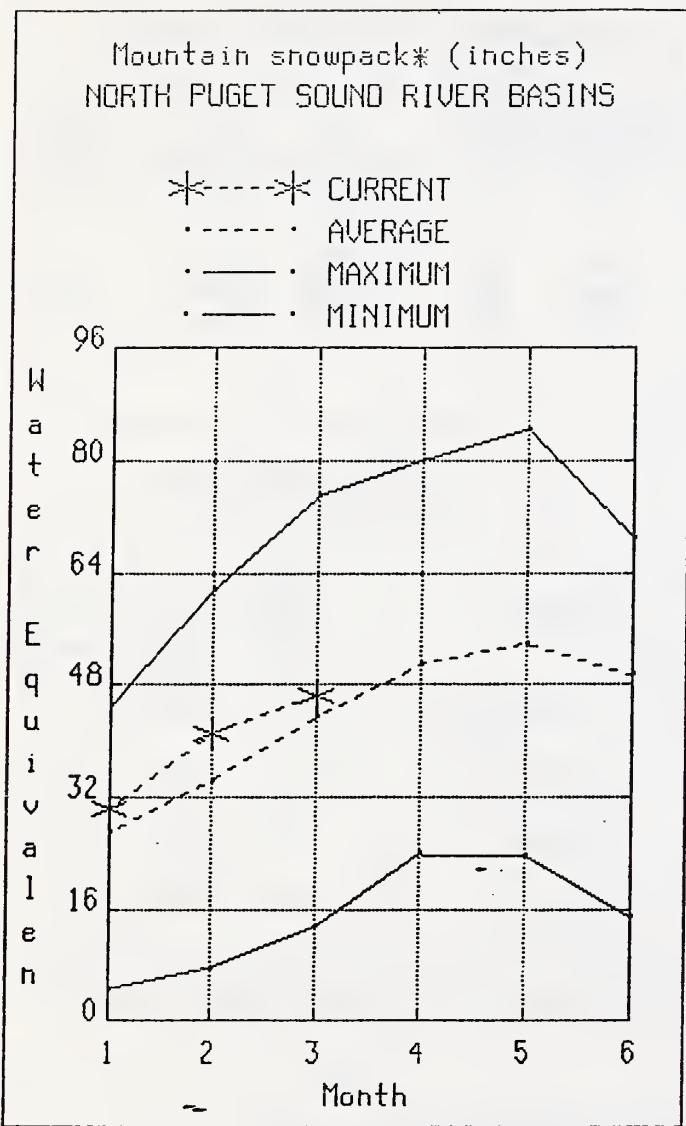
\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

# NORTH PUGET SOUND



## WATER SUPPLY

**OUTLOOK:** March 1 snow cover in the Skagit Basin is 123% of normal, and in the Baker River it was 102%. Rainy Pass SNOTEL at elevation of 4780 feet, has 51.7 inches of water content; normal March 1 water content is 41.7 inches. February streamflow in the Skagit River was 195% of average. Forecast for the Skagit River is 120% of normal for the spring and summer period. March 1 reservoir storage is above average, with Ross Lake reservoir at 284% of normal and 62% of capacity. Precipitation for January was 119% of average with a water year-to-date at 139% of normal. February temperatures were 4 degrees above normal.

For more information contact your local Soil Conservation Service Office.

NORTH PUGET SOUND RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST	FUTURE CONDITIONS						25 YR.
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER ----->		
		PERIOD	90% (1000AF)	70% (1000AF)	50% (MOST PROBABLE) (1000AF)	% AVG. (%)	30% (1000AF)	10% (1000AF)
SKAGIT RIVER at Newhalem (2)	APR-SEP	2250	2530	2720	120	2910	3190	2264
	APR-JUL	1880	2110	2270	120	2430	2660	1891
	APR-JUN	1430	1610	1730	120	1850	2030	1442

RESERVOIR STORAGE (1000AF) | WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY:	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
ROSS	1404.1	872.1	794.0	307.6	Snoqualmie River	3	59	64
DIABLO RESERVOIR		NO REPORT			Skykomish River	3	62	82
GORGE RESERVOIR		NO REPORT			Skagit River	13	117	123
					Baker River	9	107	112

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

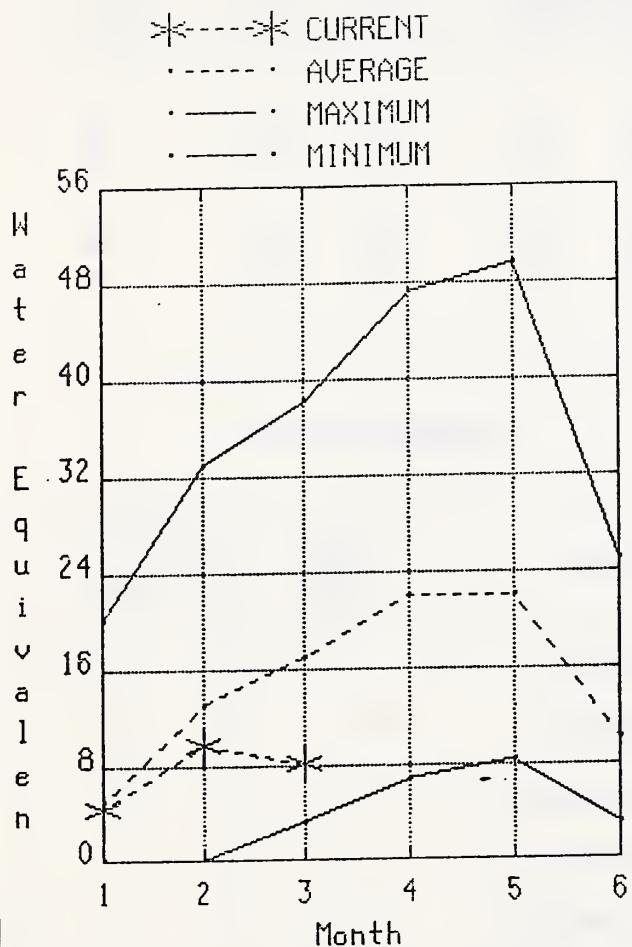
The average is computed for the 1961-1985 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

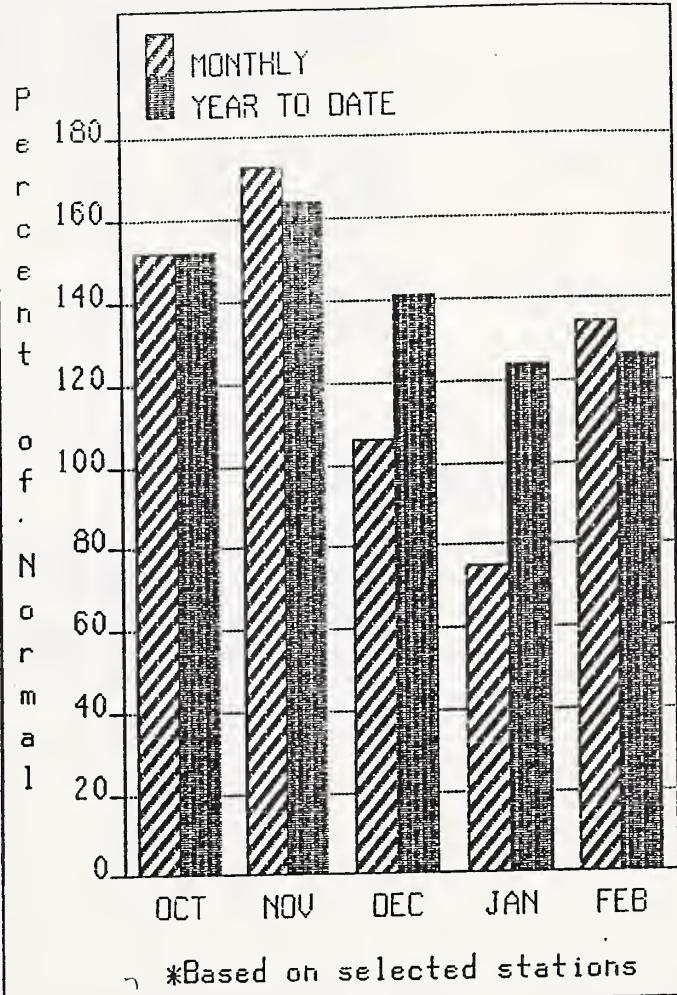
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# OLYMPIC

## Mountain snowpack\* (inches) OLYMPIC PENINSULA RIVER BASINS



## Precipitation\* (percent of normal) OLYMPIC PENINSULA RIVER BASINS



## WATER SUPPLY

**OUTLOOK:** February precipitation was 134% of average, with Quillayute receiving 16.45 inches. The basin water year-to-date precipitation accumulation is 126% of normal. March 1 snow cover in the Olympic basins is at 38% of normal on the Elwha River and 50% on the Dungeness River. March forecasts of runoff for streamflow in the basin are for 80% of average on the Dungeness River, down from 88% last month, and 80% for the Elwha River, down from 91% last month. The Big Quilcene can expect below normal runoff this summer. The Mount Crag SNOTEL near Quilcene had 5.0 inches on March 1, with the snowpack at Hurricane Ridge at 18 inches in depth and 6.8 inches of water. Temperatures were 4 degrees above normal for February.

For more information contact your local Soil Conservation Service office.

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OLYMPIC PENINSULA RIVER BASINS

STREAMFLOW FORECASTS

FORECAST POINT	FORECAST PERIOD	FUTURE CONDITIONS						25 YR. (1000AF)	
		<----- DRIER ----->		CHANCE OF EXCEEDING *		WETTER ----->			
		90%	70%	50% (MOST PROBABLE)	(1000AF)	30%	10%		
DUNGENESS RIVER nr Sequim	APR-SEP	100	117	128	81	140	156	159	
	APR-JUL	82	96	105	81	114	128	129	
	APR-JUN	62	72	79	81	86	96	97	
ELWHA RIVER nr Port Angeles	APR-SEP	345	405	445	80	485	545	553	
	APR-JUL	290	335	370	81	405	450	454	

RESERVOIR STORAGE

(1000AF)

WATERSHED SNOWPACK ANALYSIS

RESERVOIR	USEABLE CAPACITY	** USEABLE STORAGE **			WATERSHED	NO. COURSES	THIS YEAR AS % OF LAST YR. AVERAGE	
		THIS YEAR	LAST YEAR	AVG.			AVG'D	LAST YR.
					Eiwha River	1	34	36
					Morse Creek	1	62	64
					Dungeness River	1	49	50
					Quilcene River	0	0	0
					Wynoochee River	1	24	31

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1985 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.



